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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,222	06/22/2007	Kim Dralle	PLOUG27.001APC	6951

20995 7590 09/14/2010
KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER

CARTER, AARON W

ART UNIT	PAPER NUMBER
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2624

NOTIFICATION DATE	DELIVERY MODE
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09/14/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/590,222	Applicant(s) DRALLE, KIM	
	Examiner AARON W. CARTER	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2006 and 26 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Preliminary Amendment

1. In response to applicant's amendment received on 8/21/06, all requested changes to the specification and claims have been entered. Claims 3 and 4 have been cancelled. Currently claims 1, 2 and 5-12 are pending.

Claim Objections

2. Claim 12 is objected to because of the following informalities: In line 2 the word "ht e" appears to be a typo and the Examiner will treat it as "the" until otherwise notified. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 2 and 5-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, at lines 7-8 and 10-11, the limitations that state "so that each of the first/second pairs of images allows stereo imaging" are considered indefinite. The use of the

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term “allows” raises the question of where or not stereo imaging is actually performed or if the image pairs could be used for stereo imaging if desired. It could be argued that any pair of images taken could allow for stereo imaging under the right circumstances.

Claims 2 and 5-9 are rejected by the virtue of their dependency upon claim 1.

Claim 10 recites a similar limitation to those of claim 1 and is rejected for the same reason indicated above for claim 1.

Claims 11 and 12 are rejected by the virtue of their dependency upon claim 10.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 6, 7, 9, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,267,018 to Kauppinen in view of USPN 4,913,551 to Davis (already of record, see the IDS filed on 10/26/06).

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As to claim 1, Kauppinen discloses a method for determining a physical property of an individual object among a plurality of like objects lying in a side-by-side relationship each object having opposed first and second end faces and an upper side face extending between the first and second end faces, the first and second end faces and the upper side face being exposed (*Fig. 2-5 and supporting disclosure, wherein the logs are stacked side-by-side in a trailer with end faces exposed and for the logs on top the upper side faces are exposed*), the method comprising:

taking a series of first pairs of images of the first end faces and of a of the upper side faces of the objects (*Figs. 4-6 and column 2, line 56 – column 3, line 10, wherein video cameras are paired up for imaging both end faces and upper side faces of the logs*),

taking a series of second pairs of images of the second end faces and of the of the upper side faces of the objects (*Figs. 4-6 and column 2, line 56 – column 3, line 10, wherein video cameras are paired up for imaging both end faces and upper side faces of the logs*),

the series of first pairs of images and the series of second pairs of images being taken using a camera during relative motion between the camera and the object (*column 2, lines 12-18, wherein the trailer is moved at a slow constant rate through the hall*), and

processing selected first and second pairs of images for determining the physical property of the individual object (*column 3, line 10 – column 4, line 11*).

Kauppinen does not disclose expressly that each of the first and second pairs of images allows stereo imaging of the objects.

Davis discloses a method for taking first and second pairs of images of first and second end faces of an object and that the first and second pairs of images allows stereo imaging of the objects (*Davis, Figs 1-4 and column 3, line 37 – column 4, line 4*).

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Kauppinen & Davis are combinable because they are from the same art of image processing, specifically the inspection of wooden logs by image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the technique of using pairs of cameras to acquire stereo images of the objects under inspection, as taught by Davis, with method disclosed by Kauppinen.

The suggestion/motivation for doing so would have been to provide means to quickly, easily and accurately measure the length of an elongated object through the use of stereo imaging (*column 3, lines 21-25 and 47-52*).

Therefore, it would have been obvious to combine Kauppinen with Davis to obtain the invention as specified in claim 1.

As to claim 2, the combination of Kauppinen and Davis discloses the method of claim 1, wherein the objects are logs or pieces of processed wood (*Kauppinen, Abstract and Davis, Abstract*).

As to claim 5, the combination of Kauppinen and Davis discloses the method of claim 2 wherein first and second series of first pairs of images and second pairs of images are taken with the camera being stationary and moving the plurality objects relative to the camera (*Kauppinen, Figs. 1-3 and column 2, lines 12-35*), however it would have been an obvious design choice to one of ordinary skill in the art keep the object stationary while moving the camera since the results would be the same.

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As to claim 6, the combination of Kauppinen and Davis discloses the method of claim 2, wherein the first and second series of first pairs of images and second pairs of images are taken with the camera being stationary and moving the plurality objects relative to the camera (*Kauppinen, Figs. 1-3 and column 2, lines 12-35, wherein the truck with the logs is moved past the stationary cameras*).

As to claim 7, the combination of Kauppinen and Davis discloses the method of claim 1, wherein each series of first and second pairs of images is taken using a pair of cameras (*Figs. 4-6 and column 2, line 56 – column 3, line 10*).

As to claim 9, the combination of Kauppinen and Davis discloses the A method according to claim 2, wherein the physical property is selected from the group consisting of length, diameter, volume, shape, curvature, surface irregularities, species of tree, percentage of bark, percentage of wood, damage, and percentage of rot (*Kauppinen, column 3, line 10 – column 4, line 11 and Davis, column 7, lines 28-63*).

As to claim 10, please refer to the rejection of claim 1 above.

As to claim 11, please refer to the rejection of claim 5 above.

As to claim 12, please refer to the rejection of claim 6 above.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kauppinen and Davis in further view of USPN 6,643,396 to Hendricks et al., (“Hendricks”).

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As to claim 8, the combination of Kauppinen and Davis discloses the method according to claim 1.

The combination of Kauppinen and Davis does not disclose expressly wherein each series of first and second pairs of images is taken using a single camera.

Hendricks discloses taking pairs of images using a single camera (*Fig. 1*).

Kauppinen, Davis & Hendricks are combinable because they are from the same art of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the single camera disclosed by Hendricks for capturing the image pairs disclosed by the combination of Kauppinen and Davis.

The suggestion/motivation for doing so would have been to provide stereo imaging through the use of a single camera.

Therefore, it would have been obvious to combine Kauppinen and Davis with Hendricks to obtain the invention as specified in claim 8.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2007/0286474 to Dralle, US 2006/0092403 to Dralle et al., USPN 7,660,433 to Dralle et al., US 2002/0024677 to Metcalfe et al., USPN 5,544,757 to Geiger et al., US 2008/0140248 to Moore, USPN 7,032,458 to Tanaka, USPN 6,597,761 to Garms, III, US 2003/0025788 to Beardsley, US 2004/0223640 to Bovyryn.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON W. CARTER whose telephone number is (571)272-7445. The examiner can normally be reached on 9am - 5:30 pm (Mon. - Fri.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron W Carter/
Primary Examiner, Art Unit 2624